

## Appendix G.

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## Appendix H.

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## **Appendix I.**

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## Appendix J. Release C Look Ahead Requirements

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This appendix contains the Release C look ahead requirements (Table J-1) that have been brought under configuration control prior to the creation of the RELB\_CDR\_010396 RTM baseline.

Where no ID and text is given in the RbR column, it signifies that as yet no links have been created within the RTM database for these requirements. This will be resolved during Release C requirements analysis.

### *Release C Look Ahead Requirements (1 of 7)*

L4 ID	Rel	L4 Text	RbR ID	RbR Text
S-CLS-11180	C	The WKBCH CI shall provide users the capability to acquire Science Processing Library holdings.		
S-CLS-12880	C	The WKBCH CI shall support a dumb terminal interface that provides users system access from local and remote bitmapped-display terminals.		
S-CLS-12890	C	The WKBCH CI shall provide a dumb terminal interface with context-sensitive help.		
S-CLS-13180	C	The WKBCH CI shall provide users the capability to suspend user sessions with service providers.		
S-CLS-13190	C	The WKBCH CI shall provide users the capability to resume suspended user sessions with service providers.		
S-CLS-13290	C	The WKBCH CI shall provide a dumb terminal interface with data dictionary associations between variables (e.g., between instruments and geophysical parameters).		
S-CLS-14100	C	Externalized user sessions shall be saved in <TBD> format.		
S-DMS-00800	C	The LIMGR CI shall be able to provide notification of events associated with sessions which require additional instructions, e.g., when requests exceed a specified threshold.		
S-DMS-00805	C	The LIMGR CI shall be able to provide notification of events associated with Service requests which require additional instructions, e.g., when resources for a request exceed a specified threshold.		

**Release C Look Ahead Requirements (2 of 7)**

<b>L4 ID</b>	<b>Rel</b>	<b>L4 Text</b>	<b>RbR ID</b>	<b>RbR Text</b>
S-DMS-00810	C	The LIMGR CI shall provide an entry point to be used to respond to notifications of events which require instructions to be returned to the LIM CI.		
S-DMS-00820	C	The LIMGR CI shall provide the capability to accept and utilize the entry point to be used for asynchronous notification in asynchronous Service Requests.		
S-DMS-00830	C	The LIMGR CI shall provide the capability to disable asynchronous notifications and provide default instructions for such notification events.		
S-DMS-00840	C	The LIMGR CI shall be able to accept notifications of events associated with Service Requests it issued to other services.		
S-DMS-00845	C	The LIMGR CI shall be able to accept notifications of events associated with sessions it has with other services.		
S-DMS-00850	C	The LIMGR CI shall provide a capability to accept instructions associated with responses to notifications of events.		
S-DMS-00870	C	The LIMGR CI shall automatically suspend sessions that have been inactive for a specified time.		
S-DMS-00950	C	The LIMGR CI shall provide the capability for the operations staff to specify a "time-out" period for inactive sessions.		
S-DMS-10800	C	The DIMGR CI shall be able to notify clients of events associated with Service Requests which require additional instructions from the client, e.g., when requests exceed at specified threshold.		
S-DMS-10805	C	The DIMGR CI shall be able to provide notification of events associated with Service requests which require additional instructions, e.g., when resources for a request exceed a specified threshold.		
S-DMS-10810	C	The DIMGR CI shall provide an entry point to be used to respond to notifications of events which require instructions to be returned to the DIM CI.		



**Release C Look Ahead Requirements (3 of 7)**

<b>L4 ID</b>	<b>Rel</b>	<b>L4 Text</b>	<b>RbR ID</b>	<b>RbR Text</b>
S-DMS-10820	C	The DIMGR CI shall provide the capability to accept and utilize an entry point to be used for asynchronous notification in asynchronous Service Requests.		
S-DMS-10830	C	The DIMGR CI shall provide the capability to disable asynchronous notifications and provide default instructions for such notification events.		
S-DMS-10840	C	The DIMGR CI shall be able to accept notifications of events associated with sessions it has with other services and translate them into the appropriate LIMGR events.		
S-DMS-10845	C	The DIMGR CI shall be able to accept notifications of events associated with Service requests it issued to other services.		
S-DMS-10850	C	The DIMGR CI shall provide a capability to implement instructions associated with notification events.		
S-DMS-10870	C	The DIMGR CI shall automatically suspend sessions that have been inactive for a specified time.		
S-DMS-10950	C	The DIMGR CI shall provide the capability for the operations staff to specify a "time-out" period for inactive sessions.		
S-DSS-00266	C	The SDSRV CI shall provide an interface which allows users to interactively insert into the data server a new search method developed by the user.	EOSD5320#C	ECS shall be able to interactively insert new search and access methods developed by science users.
S-DSS-00268	C	The SDSRV CI shall provide an application program interface for linking search methods into a Data Server.		
S-DSS-00890	C	The SDSRV CI shall provide tools to the users to perform lossy compression of TBD EOS data.		
S-DSS-00895	C	The SDSRV CI shall provide tools to the users to perform lossy decompression to TBD EOS data.		
S-DSS-00910	C	The SDSRV CI shall provide tools to the users to perform lossless compression of TBD EOS data.		
S-DSS-00915	C	The SDSRV CI shall provide tools to the users to perform lossless decompression of TBD EOS data.		

**Release C Look Ahead Requirements (4 of 7)**

<b>L4 ID</b>	<b>Rel</b>	<b>L4 Text</b>	<b>RbR ID</b>	<b>RbR Text</b>
S-DSS-01230	C	The SDSRV CI shall automatically suspend a client session that has been inactive for a specified time.		
S-DSS-01240	C	The SDSRV CI shall provide the capability for the operations staff to specify a "time-out" period for inactive client sessions.		
S-DSS-01250	C	The SDSRV CI shall provide the capability to record the actions entered by the client in a Session Log.		
S-DSS-01340	C	The SDSRV CI shall provide the capability for the client to retrieve a Session Log.		
S-DSS-01350	C	The SDSRV CI shall be able to notify clients of events associated with Service Requests or sessions which require additional instructions from the client, e.g., when requests exceed a client specified threshold.		
S-DSS-01370	C	The SDSRV CI shall provide the client with the capability to respond to notifications of events which require instructions from the client.		
S-DSS-01380	C	The SDSRV CI shall provide the client the capability to specify the entry point to be used for this asynchronous notification in asynchronous Service Requests.		
S-DSS-01390	C	The SDSRV CI shall provide the capability for clients to indicate that they do not wish to receive asynchronous notifications and provide default instructions for such notification events.		
S-DSS-01486	C	The SDSRV CI shall validate Subscription Requests for initiation of a Search Request action.		
S-DSS-01650	C	The SDSRV CI shall terminate continuing Subscriptions after specified time period, unless the Subscription has been renewed.		
S-DSS-01660	C	The SDSRV CI shall provide the capability for operations staff to specify the expiration time period for Subscriptions.		
S-DSS-01665	C	The SDSRV CI shall provide the capability for users to specify the expiration time period for Subscriptions.		

**Release C Look Ahead Requirements (5 of 7)**

<b>L4 ID</b>	<b>Rel</b>	<b>L4 Text</b>	<b>RbR ID</b>	<b>RbR Text</b>
S-DSS-01670	C	The SDSRV CI shall provide advance Notification to a client that their Subscription is about to expire.		
S-DSS-01680	C	The SDSRV CI shall accept Subscription Renewal Requests for Subscriptions that are about to expire.		
S-DSS-01690	C	The SDSRV CI shall provide the capability for the operations staff to designate a Subscription as "permanent" and not requiring renewal.		
S-DSS-04475	C	The STMGT CI shall have the ability to store documents and/or data.		
S-DSS-10240	C	Upon receipt of all supported document formats and descriptive data, the DDSRV CI shall interface with STGMT to provide storage for the document and/or data.		
S-DSS-20310	C	The STMGT CI shall provide a mechanism to monitor archive media degradation.	DADS1350#C	Each DADS shall manage its storage media to eliminate data loss due to long or short term media degradation adhering to applicable guidelines, recommendations, and standards of NARA, NIST, and NASA, or other professional or industry organizations such as ANSI, the Society of Motion Picture and Television Engineers (SMPTE) or the National Association of Broadcasters (NAB).
S-DSS-20320	C	The STMGT CI shall provide operations staff a mechanism to display/view degradation information for any selected archive media.	DADS1350#C	Each DADS shall manage its storage media to eliminate data loss due to long or short term media degradation adhering to applicable guidelines, recommendations, and standards of NARA, NIST, and NASA, or other professional or industry organizations such as ANSI, the Society of Motion Picture and Television Engineers (SMPTE) or the National Association of Broadcasters (NAB).

**Release C Look Ahead Requirements (6 of 7)**

<b>L4 ID</b>	<b>Rel</b>	<b>L4 Text</b>	<b>RbR ID</b>	<b>RbR Text</b>
S-DSS-20330	C	The STMGT CI shall provide the capability to automatically refresh archive media, to prevent data loss due to media degradation, periodically as specified by operations staff.	DADS1350#C	Each DADS shall manage its storage media to eliminate data loss due to long or short term media degradation adhering to applicable guidelines, recommendations, and standards of NARA, NIST, and NASA, or other professional or industry organizations such as ANSI, the Society of Motion Picture and Television Engineers (SMPTE) or the National Association of Broadcasters (NAB).
S-DSS-20340	C	The STMGT CI shall provide operations staff the capability to change the time period used for monitoring degradation of archive media.		
S-DSS-20630	C	The STMGT CI shall, on a periodic basis, scan data holdings selected by operations staff, to insure the presence of archived data.		
S-DSS-20635	C	The STMGT CI shall record the results of data holding scans in the Archive Activity Log.		
S-DSS-20640	C	The STMGT CI shall provide operations staff the capability to modify the time periods for scanning its data holdings.		
S-DSS-20920	C	The STMGT CI shall provide a mechanism to statistically monitor the correctable bit error rate (BER) of archive media. Monitoring intervals shall be selectable by operations staff.	DADS1450#C	Each DADS shall be capable of screening its archive holdings of Level 1A or Level 0 data, and if a product(s) is found to be lost or unreadable, generate a request for a replacement product from EDOS, dispatch the request, and ingest the replacement product.
S-DSS-20925	C	The STMGT CI shall provide a mechanism to statistically monitor the raw bit error rate (BER) of archive media.	DADS1450#C	Each DADS shall be capable of screening its archive holdings of Level 1A or Level 0 data, and if a product(s) is found to be lost or unreadable, generate a request for a replacement product from EDOS, dispatch the request, and ingest the replacement product.
S-DSS-20935	C	The STMGT CI shall notify operations staff if raw BER exceeds an operator selectable threshold.		

**Release C Look Ahead Requirements (7 of 7)**

<b>L4 ID</b>	<b>Rel</b>	<b>L4 Text</b>	<b>RbR ID</b>	<b>RbR Text</b>
S-DSS-20936	C	The STGMT CI shall initiate a medium recopy/refresh if the raw BER for the medium exceeds an operator selectable threshold.	DADS1450#C	Each DADS shall be capable of screening its archive holdings of Level 1A or Level 0 data, and if a product(s) is found to be lost or unreadable, generate a request for a replacement product from EDOS, dispatch the request, and ingest the replacement product.
S-DSS-20940	C	The STMGT CI shall provide operations staff the capability to change time periods used for monitoring bit error rates.		
S-DSS-20950	C	The STMGT CI shall provide operations staff the capability to change BER related thresholds that determine when operations staff is notified of errors.		
S-DSS-20960	C	The STMGT CI shall automatically re-create the archive media if the raw BER exceeds a threshold specified by operations staff.	DADS1450#C	Each DADS shall be capable of screening its archive holdings of Level 1A or Level 0 data, and if a product(s) is found to be lost or unreadable, generate a request for a replacement product from EDOS, dispatch the request, and ingest the replacement product.
S-DSS-20970	C	The STMGT CI shall provide operations staff the capability to change BER related thresholds that determine when archive media is re-created.		

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## Appendix K. Data Glossary

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Acknowledgment	A message sent to the sender of a Service Request, for the purpose of informing the sender that the Service Request was received and accepted by its intended recipient.
Accountability Management Data	Information collected about the utilization of ECS services by individual users for the purposes of accountability, e.g., an audit trail of data access or service requests.
Accounting Management Data	Information collected about the utilization of ECS resources and attributed to specific accounts (e.g., users). This information is forwarded by SDPS to MSS for accounting and billing purposes. The information includes Request Identifier, date and time of request, media cost, CPU utilization, I/O utilization, personnel costs, shipping and handling costs, networking costs, and archival costs, as applicable.
Active Plan	The plan which is currently used by production processing.
Advertisement	A text description that announces the availability of an EOSDIS Data Set, Data Product, and/or associated ECS service(s).
Advertisement Request	A request for information contained in an Advertisement which is uniquely identified by the request.
Browse Data	Browse data is a subset of a larger data set, other than the directory and guide, generated for the purpose of allowing rapid interrogation (i.e., browse) of the larger data set by a potential user. For example, the browse product for an image data set with multiple spectral bands and moderate spatial resolution might be an image in two spectral channels, at a degraded spatial resolution. The form of browse data is generally unique for each type of data set and depends on the nature of the data and the criteria used for data selection within the relevant scientific disciplines
Browse Request	A request for Browse Data.

Calibration Data	Calibration Data is the collection of data required to perform calibration of the instrument science data, instrument engineering data, and the spacecraft engineering data. It includes pre-flight calibration measurements, in-flight calibrator measurements, calibration equation coefficients derived from calibration software routines, and ground truth data that are to be used in the data calibration processing routine.
Cancellation Request	A Cancellation request is a Service Request that directs a server to terminate the execution of a Service Request.
Candidate Plan	A production plan which is not currently used in production, but can be used as input to a Plan Activation Request.
Close Request	A Close Request is a Service Request that directs a DIM, LIM, or Data Server to terminate a client session and thereby deallocate resources used to support the processing of Service Requests for that session.
Configuration Management Data	Information which relates specific versions of individual software, data and hardware items to each other (i.e., defining a configuration of such items), and information which describes changes to such configurations.
Conflict Adjudication Request	A Conflict Adjudication Request is a message sent to the SMC requesting that the SMC resolve a processing conflict between the SDSRV CI, the science user, and the Data Processing Subsystem.
Conflict Adjudication Response	<p>A Conflict Adjudication Response is a message sent by the SMC describing the resolution of a processing conflict specified by a Conflict Adjudication Request. A Conflict Adjudication Response contains the following information:</p> <ol style="list-style-type: none"> <li>Conflict Adjudication Request identification</li> <li>Data Type</li> <li>Priority modifications</li> <li>Account balance modifications</li> <li>Information on when request will be serviced</li> <li>SMC contact point</li> </ol>
Core Inventory Metadata	Core Inventory Metadata is Metadata that is available for all ECS standard Data Products.



Correlative Data	Correlative Data is scientific data used in the interpretation or validation of instrument data products, e.g., ground truth data and/or data products of other instruments. These data are not utilized for processing instrument data
DAR Disposition	<p>DAR Disposition is information that is a notification of the confirmation, rejection, scheduling, or completion of a Data Acquisition Request, and includes at a minimum:</p> <ol style="list-style-type: none"> <li>Date and time</li> <li>Instrument identifier</li> <li>DAR identifier</li> <li>DAR status</li> <li>Implementation schedule</li> <li>Reason for rejection (if applicable)</li> </ol>
Data	Data is the output of an ECS service, and includes Data Products, subsets of Data Products, Data Granules, Search Results, browse images, and the output of processing requests.
Data Access Privilege	Information which specifies which types of accesses (i.e., read, update, insert, delete) a user is allowed for any given type of data.
Data Acquisition Request	<p>A Data Acquisition Request (DAR) is a Service Request that specifies the collection of Data associated with a specified instrument or instruments. A DAR contains the following information at a minimum:</p> <ol style="list-style-type: none"> <li>Observation number</li> <li>Experimenter identification</li> <li>Experimenter address</li> <li>Investigation identification</li> <li>Scientific discipline</li> <li>Observation repetition period</li> <li>Minimum coverage required</li> <li>Maximum coverage desired</li> <li>Number of instruments involved in the investigation.</li> <li>Which instruments are involved in the investigation.</li> </ol>
Data Destination	Data Destination is information that describes where Data is to be transmitted electronically.

Data Dictionary Information	Provides explanations for the various ECS data types, their data elements, the operations available on these data types, explanations of abbreviations used by the values of such data elements, and lists of valid values of data elements.
Data Format	Data Format contains the following information, where applicable: <ul style="list-style-type: none"> <li>a. Units conversion specification</li> <li>b. Compression format specification</li> </ul>
Data Granule	The smallest aggregation of data that is independently managed (i.e., described, inventoried, retrievable). Granules may be managed as logical granules and/or physical granules.
Data Identifier	A Data Identifier is information that uniquely identifies Data to be manipulated by an ECS service.
Data Insert Request	A Data Insert Request is a Service Request that calls for the storage of Data or Metadata into a Data Server.
Data Processing Request	A Data Processing Request is a Service Request passed to the Processing CI to initiate the processing of a PGE. The request provides the Processing CI information about 1 specific production job. The Data Processing Request will contain information used to execute a PGE. This information includes priority, user parameters, input data, output data, and resource information, etc.
Data Product	A set of one or more outputs of a Product Generation Executive.
Data Receipt Log	Alias for "Ingest History Log."
Data Request	A Data Request is a Service Request that directs SDPS to stage and/or distribute specified data. The specification of the data may direct SDPS to perform processing (e.g., subsetting) on the data prior to its final staging or distribution. The most trivial example of a Data Request is a Service Request that requests the distribution of a specified Data Product. There are two kinds of Data Requests, Staging Requests and Distribution Requests. Data Requests contain the following information: <ul style="list-style-type: none"> <li>a. User Identifier</li> <li>b. Request Priority</li> <li>c. Data Type</li> <li>d. Data Identifier(s)</li> </ul>

Data Request (continued)	<ul style="list-style-type: none"> <li>e. Processing Instructions (e.g., subsetting instructions), if applicable</li> <li>f. Suggested earliest start time</li> <li>g. latest completion time.</li> <li>h. Distribution Instructions or Staging Instructions (as applicable)</li> </ul>
Data Request Status	<p>Information describing the either the current progress of an ongoing Data Request or the outcome of a completed Data Request. The Data Request Status contains the following information</p> <ul style="list-style-type: none"> <li>a. User Identifier</li> <li>b. Request Identifier</li> <li>c. Request State</li> <li>d. If rejection, then the reason for the rejection.</li> <li>e. Adjusted start and completion times if request was delayed longer than latest completion time specified by user.</li> <li>f. Distribution Status (if the Data Request was a Distribution Request)</li> </ul>
Data Set	A logical collection of Data Products for which the producer has defined an Advertisement.
Data Type	SDPS uses a scheme for classifying data into types. A preliminary list of ECS Data Types is contained in the SDPS Database Design / Schema Specification (DID 311).
Data Type Identifier	Identifier of the data type (e.g., CER001).
Database Transaction	A series of database queries which are bracketed by a start transaction and end transaction command. Programmers use Database Transactions to group a set of related database queries which should either all be executed, or not at all executed. For example, in case of a failure during execution of a transaction, the queries which already completed should be rolled back.
Definitive Orbit Data	Definitive Orbit Data is spacecraft orbit data computed by the FDF based on tracking data from TDRSS satellites or ground stations, and spans a time interval that corresponds to the tracking data interval.
Delivery Record	File containing information describing data to be ingested. It has the same structure as Network Ingest Request.

Dependent Valid Values	Dependent Valid Values are parameter values that describe the acceptable values that a user may specify for a given parameter and are dependent on information that the user has already specified.
Directory	Directory is a collection of uniform descriptions that summarize the contents of a large number of data sets. It provides information suitable for making an initial determination of the existence and contents of each data set. Each directory entry contains brief data set information (e.g., type of data, data set name, time and location bounds)
Distributed Query Plan	A Distributed Query Plan is an organized set of Search Requests formulated by the Distributed Information Manager for the purpose of executing a Search Request involving multiple sites. Each Search Request within the Distributed Query Plan is intended to be processed at a single Site by either a LIM (i.e., a Site Search Request) or a single Data Server.
Distributed Search Request	A Distributed Search Request is a Search Request that is processed by a DIM and requires Data and services from multiple Sites.
Distribution Failure Message	<p>A Distribution Failure Message is information that is logged to the Distribution Activity Log when a Distribution Request fails validation. It contains the following information:</p> <ol style="list-style-type: none"> <li>User Identifier</li> <li>Request Identifier</li> <li>Date and Time</li> <li>Reason for failure</li> </ol>
Distribution Instructions	<p>Distribution Instructions is information contained in a Distribution Request that specifies how data is to be distributed. An Electronic Distribution Request contains Distribution Instructions consisting of the following:</p> <ol style="list-style-type: none"> <li>Data Format</li> <li>Push-pull flag</li> <li>Data Destination</li> </ol>

	<p>A Media Distribution Request contains Distribution Instructions consisting of the following:</p> <ol style="list-style-type: none"> <li>Data Format</li> <li>Media Specification</li> <li>Media Destination</li> <li>Shipping information</li> </ol>
Distribution Request	<p>A Distribution Request is a Data Request that directs SDPS to distribute specified Data electronically, or via the shipment of hard media. The specified data can be Data that is permanently stored or generated on-demand, or it can be staged data that is temporarily stored in a user-accessible staging area. Staged data can be a Data Product or data generated as the result of processing performed by a previous Service Request. See Data Request, for the format of a Distribution Request.</p>
Distribution Request Status	(See Data Request Status)
Distribution Status	<p>Information describing the amount of Data written to Media or transmitted electronically, during the processing of a Distribution Request.</p>
Distribution Status Request	<p>A Distribution Status Request is a Status Request that requests the status of a Distribution Request (See Status Request)</p>
Document Ingest Request	<p>A Document Ingest Request is an Ingest Request that directs SDPS to automatically transfer document data into the SDPS from an external data provider. The Document Ingest Request contains the following information:</p> <ol style="list-style-type: none"> <li>External data provider;</li> <li>Date/time prior to which the data will remain available;</li> <li>Requested ingest priority;</li> <li>List of Data Type Identifiers;</li> <li>For each Data Type Identifier: a list of document file identifiers; the corresponding file volumes; the document title; the document author; and a list of document search keywords.</li> </ol>
Electronic Distribution Request	<p>An Electronic Distribution Request is a Distribution Request that directs SDPS to distribute specified data electronically. See Data Request, for the format of an Electronic Distribution Request.</p>

Engineering Data	Engineering Data is all data available on-board about health, safety, environment, or status of the spacecraft and instruments. Spacecraft Engineering Data – The subset of engineering data from spacecraft sensor measurements and on-board computations. Instrument Engineering Data – All non-science data provided by the instrument. Housekeeping Data – The subset of engineering data required for mission and science operations. These include health and safety, ephemeris, and other required environmental parameters
Fault Management Data	Information describing system faults, such as hardware and operating system failures and application software errors which is forwarded by SDPS to MSS upon detection of the fault. The information includes type of fault, date and time fault, and identification of the failing system component.
Ground Truth	Ground Truth is geophysical parameter data, measured or collected by other means than by the instrument itself, used as correlative or calibration data for that instrument data. It includes data taken on the ground or in the atmosphere. Ground truth data are another measurement of the phenomenon of interest; they are not necessarily more “true” or more accurate than the instrument data
Hard Media Ingest Request	A Hard Media Ingest Request is an Ingest Request that directs SDPS to transfer data into the SDPS from hard media, as provided by an external data provider. The Hard Media Ingest Request contains the following information: <ul style="list-style-type: none"> <li>a. User Identifier for the external data provider;</li> <li>b. Media Type; and</li> <li>c. List of one or more Hard Media Identifiers</li> </ul>
Ingest Error Log	Log containing errors and other status occurring during ingest request processing.
Ingest History Log	The Ingest History Log contains information associated with a completed Ingest Request. An alias for Ingest History Log is "Data Receipt Log."
Ingest Request	An Ingest Request is a Service Request that directs SDPS to ingest data into the SDPS from an external data provider.
Instrument Data	Instrument Data is Data specifically associated with an instrument, either because the Data was generated by the instrument or included in data packets identified with that instrument. Instrument Data consists of Instrument Science Data and Engineering Data, and possible Ancillary Data

Instrument Calibration Data	
Instrument Characterization Data	
Instrument Historical Data	
Inventory	The collection of Data Granule specific information which describes the individual Data Granules managed by a Data Server.
Level 0 Data	Level 0 data is raw instrument data at original resolution, time ordered, with duplicate packets removed.
Level 1A Data	Level 1A data is Level 0 data which may have been reformatted or transformed reversibly, located to a coordinate system, and packaged with needed ancillary and engineering data.
Level 1B Data	Level 1B data is radiometrically corrected and calibrated data in physical units at full instrument resolution as acquired.
Level 2 Data	Level 2 data are environmental variables retrieved from Level 1 data (e.g., ocean wave height, soil moisture, ice concentration) at the same location and similar resolution as the Level 1 source data.
Level 3 Data	Level 3 data is data or retrieved environmental variables that have been spatially and/or temporally resampled (i.e., derived from Level 1 or Level 2 data products). Such resampling may include averaging and compositing.
Level 4 Data	Level 4 data is model output and/or variables derived from lower level data which are not directly measured by the instruments. For example, new variables based upon a time series of Level 2 or Level 3 data
List of Data Files	Within a Data Insert Request, specifies the files which contain information (data and meta data) which is to be inserted.
Logistics Status	
Logon Authorization Request	A message sent to CSMS to verify that a user is authorized to logon as an ECS user.
Maintenance Directives	
Media Destination	Media Destination is information that describes where media is to be physically shipped.

Media Distribution Request	A Media Distribution Request is a Distribution Request that directs SDPS to record Data on hard media and ship it to a specified destination. See Data Request, for the format of a Media Distribution Request.
Media Identifier	A Media Identifier is information used to uniquely identify a media cartridge.
Media Specification	A Media Specification is information that describes the type and number of media cartridges required to record Data for distribution.
Media Type	Type of hard media (e.g., 8mm tape) provided for ingest by an External data provider; type of hard media provided to a Science user requesting hard media distribution.
Metadata	Metadata is descriptive information that will accompany ECS Data. Metadata identifies Data; it describes the characteristics of Data including its origin, content, quality, and condition; and it provides information needed to process and interpret Data.
Network Ingest Request	<p>A Network Ingest Request is an Ingest Request that directs SDPS to automatically transfer data into the SDPS from an external data provider. The Network Ingest Request contains the following information:</p> <ol style="list-style-type: none"> <li>External data provider;</li> <li>Date/time prior to which the data will remain available;</li> <li>Requested ingest priority;</li> <li>List of Data Type Identifiers;</li> <li>For each Data Type Identifier, a list of file identifiers; and</li> <li>The corresponding file volumes.</li> </ol>
Notification	A Notification is a message sent to a user that indicates that a user-specified event has occurred. The message may be an internal ECS message or an EMAIL message.
On-Demand Data Product	An On-Demand Data Product is a Data Product that is not stored, but is generated when requested by a user.
Onboard Attitude Data	Onboard Attitude Data is attitude data generated by the spacecraft or its instruments.
Onboard Orbit Data	Onboard Orbit Data is orbit data generated by the spacecraft.
Open Request	An Open Request is a Service Request that directs a DIM, LIM, or Data Server to initiate a session and allocate resources required for the processing of Service Requests.



Performance Management Data	Information collected by SDPS and provided to MSS about the performance of individual system components, such as current resource utilization or throughput.
Phenomenological Search Criteria	Phenomenological Search Criteria are Search Criteria that identify data associated with an event or condition that is observable by ECS instruments.
Plan Activation Request	A request to the Planning CSCI to make a previously prepared plan (a Candidate Plan) active (i.e., the Active Plan).
Plan Cancellation Request	A request to cancel an Active Plan.
Plan Creation Request	A request for creating a Candidate Plan based on the planning information provided as input.
Planned Site Resource Report	The planned site resource report includes: <ol style="list-style-type: none"> <li>1) Resource ID</li> <li>2) Resource name</li> <li>3) Resource type</li> <li>4) Resource default activity</li> <li>5) String Description (TBD)</li> <li>6) Capacity Description (TBD).</li> </ol>
Planned vs. Actuals Resource Usage Reports	Planned vs. actuals resource usage reports, covering a specified time period, include the following information for each resource in turn: <ol style="list-style-type: none"> <li>1) Planned interval start time</li> <li>2) Planned interval stop time</li> <li>3) Planned ground event OR default activity</li> <li>4) Actual interval start time</li> <li>5) Actual interval stop time</li> <li>6) Actual ground event OR default activity performed.</li> </ol>
Polling Ingest Request	A Polling Ingest Request is an Ingest Request that directs SDPS to automatically transfer data into the SDPS from an external data provider. The Polling Ingest Request is triggered by periodic polling for files in a specified network accessible location. The Polling Ingest Request contains the specified network-accessible location.
Priority Information	Priority Information specifies the priority of a service request as assigned by a user or operations, or as assigned as the default or maximum priority a user can assign to a service request.

Product Generation Executable	(This is an obsolete term - see Product Generation Executive.)
Product Generation Executive	A Product Generation Executive (PGE) is a set of one or more compiled binary executables and/or command language scripts; it is the smallest unit of processing managed by the Planning and Data Processing Subsystems.
Product Specific Metadata	Product Specific Metadata is Metadata that describes characteristics of the instrument or applies only to a certain discipline, or is important only to a special segment of the science community.
Production History	A record of each step in the creation of a particular product identifying generating PGE, inputs, and other variables.
Production Plan	See Active Plan and Candidate Plan.
Production Request	<p>A Production Request is a Service Request that requests the processing of specified ECS Data by a pre-existing ECS process. A Production Request contains the following information:</p> <ol style="list-style-type: none"> <li>User Identifier</li> <li>Algorithm input requirements</li> <li>Text description of need for processing</li> <li>Level 0-4 data set/subset</li> <li>Required time of generation</li> <li>Requested priority for product processing</li> <li>Resulting product type</li> <li>Processing parameters</li> </ol>
QA Statistics	Quality indicators associated with an individual data product including drop-outs, data gaps, out-of-range values, etc.
Query	A query is a search request conforming to the format and protocols required by a COTS product that executes the search request.
Quick-Look Data	Quick-Look Data is Data received during one TDRSS contact period which have been processed to Level 0 (to the extent possible for data from a single contact). These are data that have been identified to EDOS as requiring priority processing.
Quick-Look Product	A Quick-Look Product is a Data Product produced at a PGS by applying science algorithms to Quick-Look Data

Refined Attitude Data	Refined Attitude Data is generated by the FDF in response to a request from ECS.
Refined Orbit Data	Refined Orbit Data is generated by the FDF in response to a request from ECS.
Repaired Attitude Data	Repaired Attitude Data is provided by the FDF to cover a time period when the onboard attitude data was not available or was invalid.
Repaired Orbit Data	Repaired Orbit Data is orbit data that is provided by the FDF to cover a time period when orbital measurements were not available or were invalid.
Request Identifier	A Request Identifier is information that uniquely identifies a Service Request. Request Identifiers are referenced by Status Requests and other Service Requests that are used to monitor or control the execution of Service Requests.
Request Priority	Request Priority is information that determines the order in which a Service Request will be processed relative to other Service Requests waiting to be processed.
Request Priority	Request Priority is information that determines (1) the order in which the processing of a Service Request will be initiated relative to other Service Requests, and (2) the priority for services and resources required for the processing of the Service Request.
Request State	The state of a Service Request once accepted by the SDPS (e.g., queued, active, complete). The Request State is returned as part of the Service Request Status.
Result Set	A Result Set is Data that is the output of an ECS service performed as a result of the execution of a Service request.
Resume Request	A Resume Request is a Service Request that directs a LIM, DIM, or Data Server to resume a suspended session.
Security Management Data	Information collected by SDPS and provided to MSS for the purpose of managing the security of the SDPS services and data. The information includes records of user logon and logoff, and of unauthorized attempts to access SDPS services and data
Scheduling Directive	A Scheduling Directive is a message sent by the SMC specifying the scheduling of testing and simulation activities for the system, site, or a subsystem.
Scheduling Management Data	Information about the schedules for the start up, shutdown, restart, or reservation of SDPS resources.

Schema Information	A formal description of the data which are offered by an ECS data management service (DIM, LIM, Data Servers) and are accessible via that service's query language and query interface. The schema information includes a definition of the structure of the data types supported by that data management service, the attributes and operations supported by that data type, and the valid values (or range of values) for each attribute, as applicable.
Science Software Archive Package	Includes the Science Software Delivery Package and the information generated during Integration and Test.
Science Software Delivery Package	The source code, scripts, make files, documentation, test plans, test inputs and outputs, calibration coefficients, control files, etc. that are delivered for formal Integration and Test.
Search Criteria	Search Criteria specify categories to which data belongs and are used to identify a required subset of available data.
Search Request	A Search Request is a Service Request that requests information that describes data. The service request contains Search Criteria. The execution of the Search Request produces a list of one or more members that describe the data belonging to the categories given by the Search Criteria. The resulting members can be used to formulate subsequent Search Requests or Data Requests.
Search Result	The output of a Search Request.
Security Management Data	Security Management Data is information (e.g., logon and logoff information) that is sent to MSS for reporting, tracking and alert purposes.
Service Description	A description of the functions and interfaces provided by an SDPS service, intended for inclusion in an Advertisement.
Service Request	<p>A Service Request is a message that requests Data, a service, or both. The message is generated by an ECS client and sent to an ECS server. The server executes the Service Request and generates Service Request Status information and/or results. A Service Request contains the following data:</p> <ol style="list-style-type: none"> <li>User Identifier</li> <li>Request Identifier</li> <li>Priority Information</li> <li>Request State</li> <li>If rejection, then the reason for the rejection.</li> </ol>

Service Request Cost	An aggregate measure of the resources required by a service request.
Service Request Threshold	A Service Request Threshold specifies the number of Service Requests which may be queued.
Service Request Status	Information describing either the current progress of an ongoing Service Request or the outcome of a completed Service Request.
Session Log	A record of the service requests issued by a user in the context of a session.
Session Profile	A Session Profile is information associated with a user session that is used to supply default parameters in Service Requests. The contents of the Session Profile is derived from the User Profile and from information supplied directly by the user during the user session.
Session Status Information	Session Status Information includes information about the resources allocated to the session, resources consumed by the transaction, Service Request Status of the service requests associated with that session, and session state (e.g., active, dormant, suspended).
Site Query Plan	A Site Query Plan is an organized set of Search Requests formulated by the Local Information Manager for the purpose of executing a Search Request involving multiple Data Servers at a site. Each Search Request within the Site Query Plan is intended to be processed by a single Data Server.
Site Resource Request	<p>A Site Resource Request contains:</p> <ol style="list-style-type: none"> <li>1. originator of the request</li> <li>2. the resource(s) required for the ground event (including computers, disks, storage devices, networks)</li> <li>3. ground event name</li> <li>4. the start time of the ground event</li> <li>5. the end time of the ground event</li> <li>6. frequency of ground event, if applicable</li> <li>7. ground event description or comment</li> <li>8. requested ground event priority.</li> </ol>

Site Resource Request Report	<p>The site resource request report includes:</p> <ol style="list-style-type: none"> <li>1) Resource request ID</li> <li>2) Ground event name</li> <li>3) Requested resource</li> <li>4) Requested event start time</li> <li>5) Requested event duration</li> <li>6) Requestor name</li> <li>7) Requested event description</li> <li>8) Validation status</li> <li>9) Approval status</li> </ol>
Site Search Request	A Site Search Request is a Search Request that is intended to be processed at a single Site by a LIM.
Special Data Product	A Special Data Product is either a Data Product which is considered part of a research investigation and is produced for a limited region or time period, or is a data product which is not accepted as a Standard Product.
Staging Instructions	Staging Instructions is information that describes how Data is to be staged and contains the required Data Format for the staged Data.
Staging Request	A Staging Request is a Data Request that directs SDPS to place specified Data in a user-accessible staging area. The Data can be permanently stored or generated on-demand. See Data Request, for the format of a Staging Request.
Standard Product	<p>(1) A Data Product generated as part of a research investigation, of wide research utility, accepted by the IWG and the EOS Program Office, routinely produced, and in general spatially and/or temporally extensive. Standard Level 1 products will be generated for all EOS instruments; standard Level 2 products will be generated for most EOS instruments. (2) A Data Product which has been accepted for production at a PGS, including (1) above, as well as a Prototype Product. This may include browse Data Products that are generated as part of the product production process.</p>
Status Request	<p>A Status Request is a Service Request that requests the status of one or more active Service Requests. A Status Request contains the following Data:</p> <ol style="list-style-type: none"> <li>a. User Identifier</li> <li>b. Request Identifier(s) for the statused Service Request(s)</li> </ol>

Subscription	A Subscription is a specification for an action to be performed upon the occurrence of one or more user-specified events. The action to be performed may be (1) the execution of another Service Request or (2) the issuance of a Notification. The Service Request to be executed may perform data processing or may deliver Data. The specified event(s) may correspond to the availability of Data or to the periodic expiration of a timer. Subscriptions are stored and activated by the Data Server subsystem. Once a Subscription is activated, the subsystem will detect the events specified in the Subscription as they occur.
Subscription Event	A Subscription Event is an event that triggers a specified action. Both the event and the action are specified in a Subscription.
Subscription Identifier	A Subscription Identifier is information that uniquely identifies an active or expired Subscription.
Subscription Request	A Subscription Request is a Service Request for the acceptance and activation of a Subscription by the Data Server subsystem. A Subscription Request contains a Subscription.
Subscription Update Request	A request by a client to change information recorded in an existing subscription.
Suspend Request	A Suspend Request is a Service Request that directs a LIM, DIM, or Data Server to suspend an active session. Service Requests may not reference Data and services that were previously created or defined within the context of a suspended session.
Update Metadata Request	An Update Metadata Request is a Service Request that directs the Data Server subsystem to modify specified Metadata associated with ECS Data Products..
User	A user is a person that originates Service Requests to be processed by SDPS. Includes science users, and operations staff.
User Accounting Information	Is Accounting Management Data recording the resource utilization attributed to a specific user
User Comments	User Comments is user feedback information containing at a minimum: <ul style="list-style-type: none"> <li>a. Product data quality assessment</li> <li>b. Schedule performance assessment</li> <li>c. Evaluation of quality of ECS service.</li> </ul>

User Identifier	A User Identifier is information that uniquely identifies an authorized user of SDPS services.
User Profile	<p>A User Profile is information associated with a user that is used to control the user interface and supply default parameters in Service Requests. The contents of the User Profile is derived from system default parameters and information supplied directly by the user. The User Profile will contain the following information at a minimum:</p> <ol style="list-style-type: none"> <li>User electronic address</li> <li>Media Specification (for distribution media)</li> <li>Data distribution address</li> <li>User expertise level</li> <li>Default search parameters</li> <li>Terminal characteristics</li> <li>Technical specialty</li> </ol>
User Registration Request	A message sent to CSMS to request the creation of a new user account.
User Session Log	<p>A User Session Log is a log that records the following information and activities associated with a single user session:</p> <ol style="list-style-type: none"> <li>Service Requests initiated by the user</li> <li>Service Request Status</li> <li>Notifications</li> </ol>
User Validation Status	A message sent by CSMS, in response to a Logon Authorization Request, which indicates whether or not a user is authorized to logon as an ECS user.
V0 Advertising Information	V0 Advertising Information is a message, in Version 0 format, that describes data and services that are provided by Version 0.
V0 Browse Request	A V0 Browse Request is a message, in Version 0 format, that directs the recipient of the request to provide Browse Data.
V0 Browse Results	V0 Browse Results are the output of a V0 Browse Request.
V0 Inventory Search Request	A V0 Inventory Search Request is a message, in Version 0 format, that directs the recipient of the request to provide information that describes data that can be provided by the recipient.
V0 Inventory Search Results	V0 Inventory Search Results are the output of a V0 Inventory Search Request.



V0 Migration Data	Many of the V0 data holdings will be migrated into ECS Data Server data holdings. The data being ingested by ECS for that purpose is called the V0 Migration Data.
V0 Product Request	A V0 Product Request is a message, in Version 0 format, that directs the recipient of the request to provide a Data Product.
Valid Values	Valid Values are parameter values that describe the acceptable values for a given parameter.
Working Storage Allocation Request	A request for the allocation of temporary storage.

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# Abbreviations and Acronyms

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ACMHW	Access and Control Management HWCI
ADC	affiliated data center
ADSHW	Advertising Server HWCI
ADSRV	Advertising Service CSCI
AI&T	algorithm integration and test
AITHW	Algorithm Integration and Test HWCI
AITTL	Algorithm Integration and Test CSCI
AM-1	EOS AM Project spacecraft 1, morning spacecraft series -- ASTER, CERES, MISR, MODIS and MOPITT instruments
ANSI	American National Standards Institute
API	application program (or programming) interface
APID	application's process ID
AQAHW	Algorithm QA HWCI
ASCII	American Standard Code for Information Exchange
ASF	Alaska SAR Facility
ASTER	Advanced Spaceborne Thermal Emission and Reflection Radiometer (formerly ITIR)
avg	average
AVHRR	Advanced Very High-Resolution Radiometer
BER	bit error rate
BUFR	binary universal format for representation of data
CCB	Configuration Control Board
CCSDS	Consultative Committee for Space Data Systems
CD-ROM	compact disk -- read only memory
CDRL	contract data requirements list
CHUI	Character-based User Interface
CERES	Clouds and Earth's Radiant Energy System
CI	configuration item
CLS	Client Subsystem
CORBA	Common Object Request Broker Architecture
COTS	commercial off-the-shelf (hardware or software)
CPU	central processing unit
CSCI	computer software configuration item

CSMS	Communications and Systems Management Segment (ECS)
CSS	Communications Subsystem
DAAC	Distributed Active Archive Center
DAN	data availability notice
DAO	Data Assimilation Office
DAR	data acquisition request
DAS	data availability schedule
DBMS	Database Management System
DCE	Distributed Computing Environment
DCN	Document Change Notice
DDICT	Data Dictionary CSCI
DDIST	Data Distribution Services CSCI
DDSRV	Document Data Server CSCI
DESKT	Desktop CSCI
DID	data item description
DIM	distributed information manager (SDPS)
DIMGR	Distributed Information Manager CSCI
DIPHW	Distribution and Ingest Peripheral Management HWCI
DMGHW	Data Management HWCI
DMS	Data Management Subsystem
DPR	data processing request
DPS	Data Processing Subsystem
DRPHW	Data Repository HWCI
DSS	Data Server Subsystem
ECS	EOSDIS Core System
EDC	EROS Data Center (DAAC)
EDHS	ECS Data Handling System
EDOS	EOS Data and Operations System
EOS	Earth Observing System
EOS-AM	EOS Morning Crossing (Descending) Mission -- see AM-1
EOSDIS	Earth Observing System Data and Information System
ESDIS	Earth Science Data and Information System (GSFC)
ESDT	Earth science data types
ESN	EOSDIS Science Network (ECS)
F&PRS	Functional & Performance Requirements Specification
FDDI	fiber distributed data interface

FDF	flight dynamics facility
FDFEPHEM	FDF-generated definitive orbit data
FOS	Flight Operations Segment (ECS)
FSMS	File Storage Management System
GB	gigabyte ( $10^9$ )
GCDIS	Global Change Data & Information System
GCMD	Global Change Master Directory
GFE	Government Furnished Equipment
GNU	(recursive acronym: “GNU’s Not Unix”); a project supported by the Free Software Foundation dedicated to the delivery of free software
GPCP	Global Precipitation Climatology Project
GPCP	Global Precipitation Climatology Project
GPI	GOES Precipitation Index
GRIB	GRid In Binary
GSFC	Goddard Space Flight Center
GTWAY	Version 0 Interoperability Gateway CSCI
GUI	graphic user interface
GV	ground validation
HDF	hierarchical data format
HDF-EOS	an EOS proposed standard for a specialized HDF data format
HIPPI	high performance parallel interface
HMI	human machine interface
HTML	HyperText Markup Language
HTTP	Hypertext Transport Protocol
HWCI	hardware configuration item
I&T	integration and test
I/F	interface
I/O	input/output
ICD	interface control document
ICLHW	Ingest Client HWCI
ID	identification
IERS	International Earth Rotation Service
IMS	Information Management System (obsolete ECS element name)
INGST	Ingest Services CSCI
INS	Ingest Subsystem
IOS	Interoperability Subsystem

IP	international partners
IR-1	Interim Release 1
IRD	interface requirements document
ISO	International Standards Organization
ISS	Interconnection Subsystem
IV&V	independent verification and validation
JPL	Jet Propulsion Laboratory
L0-L4	Level 0 (zero) through Level 4
LaRC	Langley Research Center (DAAC)
LIM	local information manager (SDPS)
LIMGR	Local Information Manager CSCI
LIS	Lightning Imaging Sensor
LSM	local system management (ECS)
MB	megabyte ( $10^6$ )
MDT	mean downtime
MFLOPS	mega (millions of) floating-point operations ( $10^6$ ) per second
MISR	Multi-Angle Imaging SpectroRadiometer
MODIS	Moderate-Resolution Imaging Spectrometer
MOPITT	Measurements of Pollution in the Troposphere
MSFC	Marshall Space Flight Center
MSS	System Management Subsystem (of CSMS)
MTBF	mean time between failure
MTPE	Mission to Planet Earth
MTTR	mean time to restore
NESDIS	National Environmental Satellite Data and Information Service
NMC	National Meteorological Center (NOAA)
NOAA	National Oceanic and Atmospheric Administration
NSIDC	National Snow and Ice Data Center (DAAC)
O/A	orbit/altitude
ODC	other data center
OODCE	Object Oriented DCE
ORNL	Oak Ridge National Laboratories
OSI	Open System Interconnect
PDB	Project Database
PDPS	Planning & Data Production System
PDR	Preliminary Design Review

PDS	production data set
PGE	product generation executable
PGS	Product Generation System (obsolete ECS element name) (ASTER)
PLANG	Production Planning CSCI
PLNHW	Planning HWCI
PLS	Planning Subsystem
POSIX	Portable Operating System Interface for Computer Environments
PR	Precipitation Radar (TRMM)
PRONG	Processing CSCI
QA	quality assurance
RBR	Requirements by Release
RMA	reliability, maintainability, availability
RTF	rich text format
RTM	Requirements & Traceability Management
SAA	satellite active archive
SAGE	Stratospheric Aerosol and Gas Experiment
SCF	Science Computing Facility
SDP	Science Data Processing
SDPF	Sensor Data Processing Facility (GSFC)
SDPS	Science Data Processing Segment (ECS)
SDPTK	SDP Toolkit CSCI
SDSRV	Science Data Server CSCI
SFDU	Standard Format Data Unit
SMC	System Management Center (ECS)
SNMP	Simple Network Management Protocol
SPRHW	Science Processing HWCI
SQL	Standard Query Language
SRS	software requirements specification
SSM/I	Special Sensor for Microwave/Imaging (DMSP)
SST	sea surface temperature
STMGT	Storage Management Software CSCI
TBD	to be defined
TBD	to be determined
TMI	TRMM Microwave Image
TOMS	Total Ozone Mapping Spectrometer
TONS	TDRS On-board Navigational System

TOO	Target Of Opportunity
TRMM	Tropical Rainfall Measuring Mission (joint US-Japan)
TSDIS	TRMM Science Data and Information System
USNO	US Naval Observatory
UT	universal time
UTC	universal time code
V0	Version 0
VIRS	Visible Infrared Scanner (TRMM)
WAIS	Wide Area Information Server
WAN	Wide Area Network
WKBCH	Workbench CSCI
WKSHW	Working Storage HWCI
WRS	World Reference System
WWW	World-Wide Web



# Glossary of Terms

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Advertising Service	An ECS software component that announces the availability of data and services to ECS users.
Affiliated Data Center	A facility not funded by NASA that processes, archives, and distributes Earth science data useful for Global Change research, with which a working agreement has been negotiated by the EOS program. The agreement provides for the establishment of the degree of connectivity and interoperability between EOSDIS and the ADC needed to meet the specific data access requirements involved in a manner consistent and compatible with EOSDIS services. Such data-related services to be provided to EOSDIS by the ADC can vary considerably for each specific case.
Archive Tape Library	Archive robotics unit
Averaging	Standard data averaging involves extraction from a data granule of aggregate pixels formed by numerically averaging the N adjacent pixels in each of one or more dimensions of the granule. The number of pixels in each dimension to be averaged is characterized by the value of “N.”
Catalog Interoperability	<p>Refers to the capability of the user interface software of one data set directory or catalog to interact with the user interface at another data set directory or catalog. Three levels of Catalog Interoperability are recognized:</p> <p>Level 1 Interoperability—simple network interconnectivity among systems.</p> <p>Level 2 Interoperability—catalog systems can exchange limited search and user information.</p> <p>Level 3 Interoperability—catalog systems exchange standard search protocols. This provides “virtual” similarity between different systems.</p>
Client	A software component that sends Service Requests to ECS servers or Service Providers.
Client Session	(See Session)

Commercial Off-The-Self (COTS)	“Commercial off-the-shelf” means a product, such as an item, material, software, component, subsystem, or system, sold or traded to the general public in the course of normal business operations at prices based on established catalog or market prices (see FAR 15.804-3(c) for explanation of terms).
Correctable BER	Rate of occurrence of correctable bit errors (bit errors that are generally corrected by the corresponding hardware)
Data Center	A facility storing, maintaining, and making available data sets for expected use in ongoing and/or future activities. Data centers provide selection and replication of data and needed documentation and, often, the generation of user tailored data products.
Data Product Levels	<p>Data levels 1 through 4 as defined in the EOS Data Panel Report. Consistent with the CODMAC and ESADS definitions.</p> <p>Raw Data—Data in their original packets, as received from the spacecraft and instruments, unprocessed by EDOS.</p> <p>Level 0—Raw instrument data at original resolution, time ordered, with duplicate packets removed.</p> <p>Level 1A—Level 0 data, which may have been reformatted or transformed reversibly, located to a coordinate system, and packaged with needed ancillary and engineering data.</p> <p>Level 1B—Radiometrically corrected and calibrated data in physical units at full instrument resolution as acquired.</p> <p>Level 2—Retrieved environmental variables (e.g., ocean wave height, soil moisture, ice concentration) at the same location and similar resolution as the Level 1 source data.</p>
Data Server	A logical association of services that provide access to a collection of earth science and related data.
Deep copy	To copy an object and its representation too (e.g. to copy a file and the icon that represents that file).
Degradation	The routine loss of data continuity on a physical medium due to a combination of age and usage.
Directive	Flowdown of policy.

Distributed Active Archive Center	An EOSDIS facility which generates, archives, and distributes EOS Standard Products and related information for the duration of the EOS mission. An EOSDIS DAAC is managed by an institution such as a NASA field center or a university, per agreement with NASA. Each DAAC contains functional elements for processing data (the PGS), for archiving and disseminating data (the DADS), and for user services and information management (elements of the IMS).
ECS-Supported	A hardware or software component that conforms to an ESDIS approved set of standards and has been fully tested by the ECS contractor.
Event	In reference to subscriptions, the occurrence that triggers a subscription action
External Data Provider	An external data source providing data to be ingested into SDPS.
Facilities (IICF)	higher-level data sets.
Facility Instrument	An instrument defined by NASA as having broad significance to the EOS Program and provided by a designated NASA center or foreign agency.
Field-expandable	Storage hardware where the capacity or size of archival storage can be increased at the local site without removing the hardware from the local site
Institutional Facilities or Elements	Facilities established by an institution that take on some responsibility in support of EOSDIS, or elements of the EOSDIS that function as part of an institution, and represent both EOSDIS and the programs, goals and purpose of the institution.
Interdisciplinary	Project-provided facilities at interdisciplinary investigator locations
Investigator Computing	used to pursue EOS-approved investigations and produce
Investigator Working Group (IWG)	A group made up of the Principal Investigators and research
Length of time to store data on media	An operation personnel-selectable timer value that represents the residency time remaining for the associated archive data in the archive.

Mediation Callbacks	Mediation Callbacks are a mechanism by which the system obtains information from the user regarding directions for the execution of an active Service Request.
Off-Line	Access to information by mail, telephone, facsimile, or other non- direct interface.
On-Demand product generation	ECS has the capability to produce some products on an on demand basis. These products are only produced when a request for them is received. This is in contrast to routine product generation where products are always produced regardless of whether there are any current user requests for them.
On-Line	Access to information by direct interface to an information data base via electronic networking.
Operations Staff	Generic term for personnel who have the responsibility to operate, monitor, and control SDPS.
Physical Media Class	Class of physical media (e.g., 3480 tape, D3 tape, M/O disk)
Principal Investigator (PI)	An individual who is contracted to conduct a specific scientific investigation. (An Instrument PI is the person designated by the EOS Program as ultimately responsible for the delivery and performance of Standard Products derived from an EOS Instrument Investigation.)
Principal Investigator Computing Facility (PICF)	Project-provided facilities at PI locations used to develop and maintain algorithms, produce data sets, and validate data.
Principal Investigator Instrument	An instrument selected pursuant to the EOS Announcement of Opportunity and provided by a PI and his home institution.
Refresh	The physical act of recopying degraded media to another media volume.
Scheduling	automatic scheduling of a full set of events. Incremental scheduling is interactive scheduling of selected events. For example, the initial generation of a schedule might use batch scheduling, while the addition of a single event with the desire to avoid perturbing previously scheduled events might use incremental scheduling.

Science Processing Library	The Science Processing Library (SPL) is a repository of software, contributed by scientists and other users, to which ECS will provide access in order to facilitate the reuse of software throughout the community. This software is made available as it was contributed with ECS performing only a cataloging function to identify for users what is available. ECS is not responsible for the validity or maintenance of the software contained in the Science Processing Library.
Science User	A user of the SDPS from the scientist community or other user community that originates Service Requests.
Server	A software component that receives and executes Service Requests (e.g., the LIM, the DIM, the Data Server, the PLANG CI).
Service Class	A group of ECS services and their associated data.
Session	<p>A session is a logical context assigned to a user or a client in which a set of Service Requests are performed. Sessions associate and manage the resources and Results Sets that are allocated and generated as a result of the processing of Service Requests. A session retains information associated with the execution of Service Requests so that it is accessible to subsequent Service Requests. Service Requests may utilize resources and Results Sets allocated and produced by other Service Requests belonging to the same session. Service Requests issued in the context of one session cannot utilize the resources managed by another session. There are two kinds of sessions, client sessions and user sessions.</p> <p>A client session supports interactions between a client and a server. Client sessions associate and manage the resources and Results Sets that are allocated and generated by the server.</p>
Subsampling	Standard subsampling involves extraction of a multi dimensional rectangular array of pixels from a single data granule, where regularly-spaced, non-consecutive pixels are extracted from each array dimension. For each dimension, the size of the pixel array is characterized by the starting pixel location, the number of pixels to extract, and the pixel-spacing between extracted pixels.
Subscription Event	An event (or set of events) identified in a subscription. The event is either future data arrival or the expiration of a timer.

Subsetting	Standard subsetting involves extraction of a multi-dimensional rectangular array of pixels from a single data granule, where consecutive pixels are extracted from each array dimension. For each dimension, the size of the pixel array is characterized by the starting pixel location and the number of pixels to extract.
Target of Opportunity (TOO)	A TOO is a science event or phenomenon that cannot be fully predicted in advance, thus requiring timely system response or high-priority processing.
Team Member Computing Facilities (TMCF)	Project-provided facilities at research instrument team member locations used to develop and test algorithms and assess data quality.
User	A user is a person that originates Service Requests to be processed by SDPS. Includes science users, and operations staff.
User Interface Client	A user interface client is a software component that interacts directly with the user and submits Service Requests to ECS servers.
User Session	(See Session)
User Pull Area	The user pull area is a network-accessible data storage mechanism that provides users the capability to retrieve data immediately, and at a time of their convenience.